

WHAT IS CLAIMED IS:

1. A USB plug with a multi-directional rotation structure, adopted for a portable electronic device and mating with an electronic product having a USB port; the USB plug comprising:

5 a main body having a first pivotal portion connecting an end thereof, the first pivotal portion including a first hollow spherical housing, and a first mating portion formed on a free end of the first hollow spherical housing; and

a USB mating body relative to the main body, and having a second pivotal portion connecting an end thereof and a USB interface disposed on an opposite end thereof;
10 the second pivotal portion corresponding to the first pivotal portion, and the USB interface being relative to the USB port of the electrical product, wherein the second pivotal portion includes a second hollow spherical housing and a second mating portion formed on a free end of the second hollow spherical housing; wherein

the second hollow spherical housing has an internal diameter longer than an
15 external diameter of the first hollow spherical housing, and the second hollow spherical housing is loosely matched with the first hollow spherical housing for the first hollow spherical housing to be partially and loosely wrapped in the second hollow spherical housing;

the second hollow spherical housing has an aperture diameter adjacent the second
20 mating portion and shorter than the external diameter of the first hollow spherical housing to prevent the second hollow spherical housing from escaping out of the first hollow spherical housing; and

the first hollow spherical housing has a retaining rim contacting and sliding on the second hollow spherical housing for adjusting a relative displacement therebetween,
25 whereby the second hollow spherical housing can be manipulated with no angular limitations and rotated in multiple directions.

2. The USB plug of claim 1, wherein the first hollow spherical housing has a first cavity formed therein communicating with a second cavity formed in the second hollow spherical housing, and a plurality of electrical cables penetrate through the main body and the USB mating body and electrically connect the main body and the
5 USB interface.

3. The USB plug of claim 1, wherein the main body is a portable electronic device.

4. The USB plug of claim 1, wherein the main body is a USB adapter having at least one data transmitting interface.

5. A USB plug with a multi-directional rotation structure, adopted for a portable
10 electronic device and comprising:

two hollow spherical housings mating with each other and defining a first hollow spherical housing and a second hollow spherical housing, the first hollow spherical housing having a first opening formed in an end thereof, and the second hollow spherical housing including a second opening formed in an end thereof and relative to
15 the first opening; wherein:

the second hollow spherical housing has an internal diameter longer than an external diameter of the first hollow spherical housing, and the second hollow spherical housing is loosely matched with the first hollow spherical housing for the first hollow spherical housing partially and loosely wrapped in the second hollow spherical
20 housing; and

the second hollow spherical housing has an aperture diameter adjacent the second mating portion and shorter than the external diameter of the first hollow spherical housing to prevent the second hollow spherical housing from escaping out of the first hollow spherical housing;

25 whereby the first hollow spherical housing contacts and slides on the second hollow spherical housing for adjusting a relative displacement therebetween, and

one of the two hollow spherical housings is manipulated with no angular limitations and rotated around the other in multiple directions; and

at least one USB interface disposed on one of the two hollow spherical housings for mating with an electronic product having a USB port.

5 6. The USB plug of claim 5, wherein one of the two hollow spherical housings is a portable electronic device.

7. The USB plug of claim 5, wherein one of the two hollow spherical housings is a USB adapter having at least one data transmitting interface.